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Keeping food out of energy

State striving to replace soy- and corn-based fuels

By John J. Monahan TELEGRAM & GAZETTE STAFF jmonahan@telegram.com

BOSTON— State officials yesterday side-stepped a growing controversy over the use of food-based biofuels, ruling out support for both corn- and soy-based ethanol to meet the state's new low-carbon fuel standard aimed at reducing global warming emissions.

Gov. Deval L. Patrick last year proposed that diesel and heating oil used in the state contain a minimum of 2 percent ethanol by 2010.

Yesterday, he backed a task force report calling for the state to support and develop only advanced biofuels, which are not produced from food crops such as corn and soy, and have demonstrated reductions in greenhouse gas emissions.

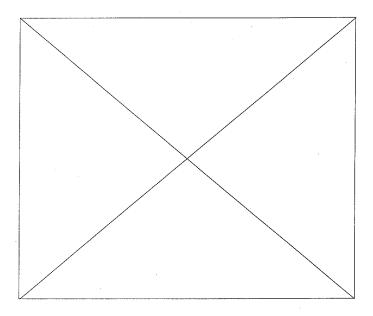
U.S. Rep. James P. McGovern, D-Worcester, a leading congressional critic of corn and soy-based fuels — who blames food-based ethanol for contributing to dramatic increases in food costs here and around the world — said yesterday he supports the state plan and the decision to avoid food-based ethanol.

"I have nothing but praise for this plan," Mr. McGovern said. "I think it is the right way to go and it could and should be a model for other states."

Also backing the establishment of a low-carbon fuel standard for vehicles, home heating and commercial use were House Speaker Salvatore F. DiMasi, D-Boston, and Senate President Therese Murray, D-Plymouth.

California Gov. Arnold Schwarzenegger, a Republican whose state adopted the first low-carbon fuel standard in the country, yesterday offered praise for Patrick.

In a statement released by the Massachusetts governor's office yesterday, Mr. Schwarzenegger said, "I applaud Massachusetts and Gov. Deval Patrick and legislative leaders for taking bipartisan action to fight global warming."



State Energy and Environment Secretary Ian Bowles said the state approach "does not pick winners and losers" among oil alternatives, but will foster innovation on production of new fuels by clean energy companies in the state.

The task force report urges the state to support development and use of only biofuels that reduce carbon emissions, compared to petroleum fuels on a "lifecycle basis." Critics claim energy put into growing and processing biofuels can eliminate the benefits of using a lower carbon fuel.

The report notes as well that food-based biofuels "are not as beneficial as previously thought and have a negative impact on food prices and supply."

The task force estimated a mature biofuels industry in Massachusetts could contribute from \$280 million to \$1 billion to the state's economy by 2025.

Mr. Patrick cited the work of a team of scientists at the University of Massachusetts at Amherst who discovered a microbe that led to a spin-off company called SunEthanol. That firm employs six people and is aimed at rapid growth.

Researchers at Worcester Polytechnic Institute's Life Sciences and Bioengineering Center are also undertaking research on development of

advanced biofuels. The WPI team is working on ways to develop biofuels from cellulose, the woody fibers found in all plants.

"We need to develop biofuels that do not compete with the food supply," said Alex Dilorio, assistant professor of biology and biotechnology and director of WPI's Bioprocessing Center at Gateway Park. "The goal is to find a renewable source of liquid fuel that is better for the environment, that doesn't rely on crude oil, and that doesn't affect the price of food," he said.

The biofuels work at the Worcester center is sponsored by California-based EdenIQ, which is investing in the development of cellulosic ethanol. Mr. Dilorio's team identified approximately 100 types of bacteria including many novel strains not previously characterized, that appear critical for breaking up the cellulose, a key part of the process of making ethanol.

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